

Amendments to and Listing of the Claims:

Please amend claims 1 and 5, cancel claims 3, 17-29, and add new claims 30-32, so that the claims read as follows:

1. (Currently Amended) A composite piezoelectric transducer comprising: a plurality of arranged piezoelectric elements; and dielectric portions positioned between the plurality of piezoelectric elements, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction in at least one piezoelectric element of the plurality of piezoelectric elements varies along the ultrasonic emitting direction; wherein the resonance frequencies of the plurality of piezoelectric elements have a distribution in which a difference between the minimum value and the maximum value is equal to or more than 10% of a mean value.

2. (Original) The composite piezoelectric transducer of claim 1, wherein the at least one piezoelectric element has a resonance frequency which is different from resonance frequencies of the other piezoelectric elements.

3. (Cancelled)

4. (Original) The composite piezoelectric transducer of claim 1, wherein each of the plurality of piezoelectric elements has a size in a certain direction perpendicular to the ultrasonic emitting direction, the size being fixed along the ultrasonic emitting direction.

5. (Currently Amended) The composite piezoelectric transducer of claim ~~3~~ 1, wherein each of the plurality of piezoelectric elements has a uniform thickness along the ultrasonic emitting direction.

6. (Original) The composite piezoelectric transducer of claim 1, wherein the plurality of piezoelectric elements are two-dimensionally arranged along a plane perpendicular to the ultrasonic emitting direction of the piezoelectric elements, and resonance frequencies of the plurality of piezoelectric elements are varied depending on the positions thereof in the plane.

7. (Original) The composite piezoelectric transducer of claim 1, wherein the plurality of piezoelectric elements have a substantially uniform height.

8. (Original) The composite piezoelectric transducer of claim 1, wherein resonance frequencies of the piezoelectric elements in a peripheral portion of a plane

perpendicular to the ultrasonic emitting direction of the piezoelectric elements are lower than resonance frequencies of the piezoelectric elements in a center portion of the plane.

9. (Original) The composite piezoelectric transducer of claim 1, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction of at least one of the plurality of piezoelectric elements in an end face of the piezoelectric element is larger than the area in a center of the piezoelectric element.

10. (Original) The composite piezoelectric transducer of claim 1, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction of at least one of the plurality of piezoelectric elements in an end face of the piezoelectric element is smaller than the area in a center of the piezoelectric element.

11. (Original) The composite piezoelectric transducer of claim 1, wherein each of the plurality of piezoelectric elements has a pair of columnar portions extending in the ultrasonic emitting direction, and a thickness of a bridging portion for coupling the columnar portions in the middle thereof is varied in a plane perpendicular to the ultrasonic emitting direction of the piezoelectric elements.

12. (Original) The composite piezoelectric transducer of claim 1, wherein each of the plurality of piezoelectric elements has an opening portion in the center thereof, and a size of the opening portion is varied in a plane perpendicular to the ultrasonic emitting direction of the piezoelectric elements.

13. (Original) The composite piezoelectric transducer of claim 1, wherein shapes of the plurality of piezoelectric elements are selected so that resonance frequencies of the plurality of piezoelectric elements have a predetermined distribution in plane.

14. (Original) The composite piezoelectric transducer of claim 1, wherein a ratio of a size in the ultrasonic emitting direction of the piezoelectric element to the minimum size S of a cross-section perpendicular to the ultrasonic emitting direction of the piezoelectric element is 5 or more.

15. (Original) The composite piezoelectric transducer of claim 1, wherein the dielectric portion is formed from a resin.

16. (Original) The composite piezoelectric transducer of claim 15, wherein a modulus of elasticity of the resin has a predetermined distribution in accordance with positions of the piezoelectric elements in a plane perpendicular to the ultrasonic emitting direction.

17-29. (Cancelled)

30. (New) A composite piezoelectric transducer comprising: a plurality of arranged piezoelectric elements; and dielectric portions positioned between the plurality of piezoelectric elements, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction in at least one piezoelectric element of the plurality of piezoelectric elements varies along the ultrasonic emitting direction, wherein each of the plurality of piezoelectric elements has a pair of columnar portions extending in the ultrasonic emitting direction, and wherein a thickness of a bridging portion for coupling the columnar portions in the middle thereof is varied in a plane perpendicular to the ultrasonic emitting direction of the piezoelectric elements.

31. (New) A composite piezoelectric transducer comprising: a plurality of arranged piezoelectric elements; and dielectric portions positioned between the plurality of piezoelectric elements, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction in at least one piezoelectric element of the plurality of piezoelectric elements varies along the ultrasonic emitting direction, wherein each of the plurality of piezoelectric elements has an opening portion in the center thereof, and wherein a size of the opening portion is varied in a plane perpendicular to the ultrasonic emitting direction of the piezoelectric elements.

32. (New) A composite piezoelectric transducer comprising: a plurality of arranged piezoelectric elements; and dielectric portions positioned between the plurality of piezoelectric elements, wherein an area of a cross-section perpendicular to an ultrasonic emitting direction in at least one piezoelectric element of the plurality of piezoelectric elements varies along the ultrasonic emitting direction, and wherein a ratio of a size in the ultrasonic emitting direction of the piezoelectric element to the minimum size S of a cross-section perpendicular to the ultrasonic emitting direction of the piezoelectric element is 5 or more.